

ON THE BRITISH *MORDELLISTENA HUMERALIS* (L.)  
(COL.: MORDELLIDAE) AND ITS ALLIES

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THE OBJECT of this paper is twofold: to draw attention to an apparently unrecognised colour-form of the above variable species, which has given rise to confusion; and to clarify the distinctions, in part unsatisfactory hitherto, between that species and *M. variegata* (F.). A third species also, *M. neuwaldeggiana* (Panz.) is involved to the extent that the aforesaid form of *humeralis* has been mistaken for it, the body-colour and general aspect being similar in the two.

This overlooked form of *humeralis* has the upper surface, including the head, wholly testaceous or brownish yellow, apart from the usual darkening of the elytra towards the apex. It does not seem to be recognised by Continental authors, whose keys to this group (e.g. Ermisch, 1969) do not allow for it. Similarly Batten (1986: 231-2) places *humeralis* under the rubric "Colour variegated . . .". By this key, for instance, these pale *humeralis* (as it is convenient to call them) are indeterminable, since they run to *neuwaldeggiana* but do not fit on antennal coloration. I sent Mr Batten an example of this form, and he replied that it could only be *humeralis*; I gathered that he had not previously seen such specimens. In the British literature, however, it has been briefly and somewhat incidentally mentioned by myself (1987), but is now accorded the more prominent notice it merits. My statement there that this is the usual British form (p. 39) may turn out to have been rather premature, but appears true for south-east England at least.

A small series of this deceptive form, from Windsor Great Park, for many years stood as *M. neuwaldeggiana* in my collection; the beetles were obtained from *Heracleum* umbels in a small area unaccompanied by any of the typical, black-headed *humeralis* which would have given a clue to their identity. Not only that, but also the series standing over the former name in the British Coleoptera collection at the Natural History Museum was found to be mixed, about half of them (an entire row derived from the Champion collection, from various southern localities) being "pale" *humeralis*. It is evident, therefore, that this form may well be doing duty for *neuwaldeggiana* in other collections, and that records of both species ought as far as possible to be checked. The fact that where these pale *humeralis* occur, they seem thus far to exclude the recognised forms of the species, increases the chance of error.

Partly (or largely?) because of confusion on the one hand with *M. neuwaldeggiana* as above, and on the other with *M. variegata* (see below) – as in Joy (1932: 311), who treats the two species as one, *M. humeralis* has up to now been regarded as rare in Britain. That does seem to have been the case until fairly recently. Batten (1986: 233) had seen it only from Monks

Wood, Huntingdonshire (D. Tozer, coll. Allen) and added the caution "previously published records . . . are unreliable due to confusion with *variegata*". I first took several at Windsor as above (vii.1945), followed by two at Effingham, Surrey (21.vii.47) which, like those from Monks Wood, are of the typical form with head black except in front and contrasting well with the clear rufous pronotum. Here in the south-east suburbs of London, at least in the last several years, the species – always in its yellow-headed form – can occur in profusion at times though only very locally. I have already noted it from Charlton, and it occurs chiefly in one area of Oxleas Wood (a strip bordering the main Shooters Hill road) on flowers of Umbelliferae, where also its two allies are to be found but less frequently. On 1st August 1992, in this site, an isolated umbel of *Angelica* (the first of this plant seen there by me) was found to be swarming with *Mordellistena*; even the air above it was abuzz with the beetles. The small sample taken for examination consisted of "pale" *humeralis* with a few *variegata* intermixed. Mr R.A. Jones, also, met with the former abundantly at Nunhead Cemetery, south-east London, at about the same time, but I have not seen any of these\*. It is noteworthy that the two colour forms of *M. humeralis* now known to occur with us appear so far to inhabit different localities.

*Mordellistena humeralis* is such a perplexing species because it is decidedly more variable than its allies not just in coloration, but also in certain minor structural points – the latter insufficiently realised up to now. They include length and stoutness of antennal and palpal segments (possibly correlated with body-size, and apparently more pronounced in the typical form); and the basal curvature of the pronotal side-margins, *i.e.* whether slightly sinuate with acute hind angles, or not at all sinuate with the angles obtuse (the latter more common). This would normally constitute a specific character in the genus, but here, exceptionally, it is inconstant. *M. variegata*, on the other hand, though on the Continent very variable in colouring like its close relative ("sehr veränderlich gefärbte Art", Ermisch p.185), appears less so in Britain. The well-marked humeral yellow patches and mostly dark pronotum distinguish at a glance all those I have seen. In contrast I have not seen British *humeralis* with mainly dark elytra or any dark colour on the pronotum, but it is too early to assert that they do not occur.

In practice, therefore, if the above is borne in mind, the separation of these two species (I refer only to British material) should seldom pose any problem. Doubts may, however, arise if some of the key-characters given by authors are taken at face value. Thus, *variegata* may have antennae almost as dark as *humeralis*. Nor are pubescence characters always free from confusion: a purple iridescence on the hairs is attributed by Fowler (p.93, following Thomson) to *humeralis*, but by Buck (1954: 16) to *variegata*; Ermisch and Batten describe the pubescence as smooth in *humeralis* but rough (*i.e.* a little raised) in *variegata*. I would call it more shining and conspicuous and more obviously yellow in the latter species. Whilst the

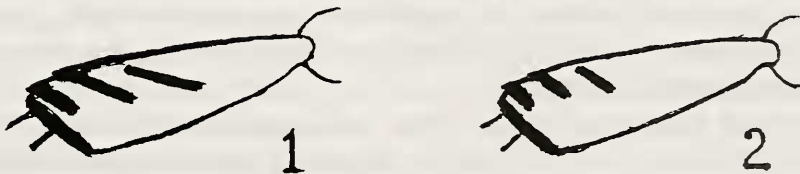
\* See editorial postscript.

alleged antennal differences can be hard to appreciate, the palpal character is good but relates to males only.

An excellent criterion (already known to the older authors but not referred to by Ermisch or Batten) is to be found in the arrangement and extension of the three black or fuscous ridges on the outer face of the hind tibia, viewed in the lateral or slightly ventro-lateral aspect. Because of their dark colour against the yellow background of the tibia, they normally stand out very clearly. There is, admittedly, some variation: the ridges can be poorly developed or defined, a little broken up or confused, or rather indistinct, *e.g.* if the tibia is abnormally dark. One or two of them may be abbreviated, or a rudiment of an extra ridge be present. But, in over 15 specimens of each species examined, no case of "overlapping" was found, so that separation should always be possible (and as a rule easy) on this character alone. The points to note are the position, relative length, and especially the obliqueness, of the ridges; and the area of the tibia occupied by them, which differs markedly in the two species. Only Buck (p.15, figs. 28, 29) illustrates this important character, but most unfortunately his figures are quite inadequate, too little different, apparently confused, and in any case unusable. New figures are therefore required, and are provided here.

Below is a simplified key to the three species considered, designed to accommodate the *neuwaldeggiana*-like form of *M. humeralis*, and omitting characters that seem to be of doubtful utility:—

- 1/2 Head and whole of antennae rufotestaceous or brownish-yellow; antennal segments beyond the base strongly elongate, linear. (Male maxillary palpi as *variegata*, hind tibial ridges about as *humeralis*.) .....*neuwaldeggiana*
- 2/1 If head rufotestaceous or brownish-yellow (many *humeralis*), then antennae dark beyond the base or at least darker towards apex, segments less elongate and less linear. Otherwise head dark except in front.
- 3/4 The dark ridges on outer face of hind tibiae about as in Fig. 1; male with segment 2 of maxillary palpi simple, or if noticeably broader than 3, not circularly dilated .....*humeralis*
- 4/3 The dark ridges on outer face of hind tibiae about as in Fig. 2; male with segment 2 of maxillary palpi broadly, almost circularly, dilated .....*variegata*



Figs. 1 – 2. Outer face of right hind tibia of *Mordellistena* spp.  
1. *humeralis* (L.); 2. *variegata* (F.).

## References

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## Editorial postscript

Having had a chance to examine Mr Allen's very interesting paper in advance of publication, I took the opportunity of re-examining the series of *Mordellistena* that I took in Nunhead Cemetery in 1992, (*Br. J. Ent. nat. Hist.* 1992; 5: 189-190). Using Batten's key (*Ent. Gaz.* 1986; 37: 225-235) they still worked, more or less, to *M. humeralis* (L.), but examination of the dark ridges of the hind tibiae showed that, in fact, they were all specimens of *M. variegata* (F.). It is always galling and embarrassing to have to retract and correct an identification, especially a published one, but Mr Allen's paper should make such events less common in this particular species complex.— RICHARD A. JONES, 13 Bellwood Road, Nunhead, London SE15 3DE.

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**Notes on finding the larva of *Coleophora aestuariella* Bradley (Lep.: Coleophoridae)**

On 3rd October 1981, I found five small and most peculiar-looking *Coleophora* cases feeding upon the ripening seeds of *Suaeda maritima* on the extreme tidal edge of the saltings at Harty, North Kent. They were about 5mm long, very flat-oval and undecorated with debris. A substantial proportion of the cases were strikingly coloured a bright magenta. Whether or not this was a result of hollowing out a purple bract of the foodplant remains to be determined, although it is to be noted that the cases are similarly coloured whether feeding on "red" or "green" plants. Possibly it is caused by a pigment change as the plant dies.

The larvae overwintered in captivity by encasing their cases within a rough silken cocoon between the layers of tissue provided. Further observation is needed under natural conditions to establish whether it buries itself in the mud, similar to *Coleophora clypeiferella* Hufn. and *C. salicorniae* Wocke which escape as adults with the aid of spines present on the underside of the abdomen.

Two males and a single female were subsequently bred between 7th and 24th July 1982 and were described as a species new to science (Bradley, J.D., 1984. *Entomologist's Gazette* 35: 137-140.— N.F. HEAL, 44 Blenheim Avenue, Faversham, Kent ME13 8NW.